

Amendments to the Claims

1. (Currently amended) A method of surface treatment of a titanium metal comprising
plasma carburizing in an atmosphere comprising a carburizing gas having a ~~molar~~
composition thereof adjusted such that an (H/C) ratio of hydrogen atoms (H) to carbon
atoms (C) adjusted to is $1 \leq H/C \leq 9$ at a pressure of 13-400 Pa and a temperature of
400-690 °C.

2. (Currently amended) A method of surface treatment of a titanium metal
comprising heating the titanium metal to a temperature of 400-690 °C in a cleaning gas
atmosphere containing hydrogen gas,
subjecting the surface of the titanium metal to cleaning by applying a DC voltage
of 200-1500 V, and
plasma carburizing in an atmosphere comprising a carburizing gas having a ~~molar~~
composition thereof adjusted such that an (H/C) ratio of hydrogen atoms (H) to carbon
atoms (C) adjusted to is $1 \leq H/C \leq 9$ at a pressure of 13-400 Pa and a temperature of
400-690 °C.